

IN THE CLAIMS

Please amend the claims to read as indicated herein.

✓
Please cancel claims 18 – 25, 40 and 41.

41
1. (currently amended) A satellite communication system ~~comprised of~~ comprising:
a plurality of satellites and a plurality of gateways,
said satellite communication system being bidirectionally coupled to a terrestrial
communication system through ~~at least~~ said plurality of gateways,
said satellite communication system and said terrestrial communications system comprising
together a data communication network having a plurality of nodes including source
nodes, destination nodes and intermediate nodes,
wherein multiple copies of a packet are selectively generated within the data communications
network based on a criteria that includes at least one of (a) whether the packet was
previously duplicated by a previous node, and (b) a direction of transmission, from
source to destination or from destination to source,
wherein said multiple copies of a packet coexist within the data communications network and
are routed, using at least in part satellite-resident routers and gateway-resident routers,
over a plurality of different paths between a particular source node and a particular
destination node, and
wherein at least one duplicate copy of a given packet is not used during the execution of a
packet reordering procedure in the destination node, or at an intermediate node.

2. (original) A system and network as in claim 1, wherein certain of said paths are carried over
satellite-to-satellite cross-links.

3. (original) A system and network as in claim 1, wherein certain of said paths are carried over
satellite-to-gateway uplinks and downlinks.

4. (original) A system and network as in claim 1, wherein at least one of said paths is carried
over a satellite-to-user terminal uplink and downlink.

5. (original) A system and network as in claim 1, wherein said packets are TCP/IP packets (or packets with equivalent protocol) containing information for enabling said duplicate packets to be ignored.

6. (original) A system and network as in claim 1, wherein said plurality of gateways couple said satellite communication system to said terrestrial communication system at a plurality of points, including at least at one of regional networks, national networks, commercial networks, Internet Service Providers (ISPs), or directly to a backbone network.

7. (original) A system and network as in claim 1, wherein said plurality of satellites comprise a constellation of non-geosynchronous orbit satellites.

8. (original) A system and network as in claim 1, wherein said plurality of satellites comprise a constellation of low earth orbit satellites.

9. (original) A system and network as in claim 1, wherein said plurality of satellites comprise a constellation of medium earth orbit satellites.

10. (original) A system and network as in claim 1, wherein said packets are TCP/IP or equivalent packets.

11. (original) A system and network as in claim 1, wherein at least some of said packets comprise voice data.

12. (original) A system and network as in claim 11, wherein said system routes said packets comprised of voice data over semi-permanent paths that are established during the duration of a call.

13. (original) A system and network as in claim 11, wherein said at least some of said packets that comprise voice data comprise vocoded voice data that is generated external to a user terminal and that is input to the user terminal for transmission to at least one satellite.

14. (original) A system and network as in claim 11, wherein said at least some of said packets that comprise voice data comprise vocoded voice data that is generated internal to a user terminal for transmission to at least one satellite.

15. (original) A system and network as in claim 1, wherein said duplicate packets are transmitted from a plurality of satellite-resident routers to a single gateway-resident router, and are injected into the Internet by the single gateway-resident router.

16. (original) A system and network as in claim 1, wherein said duplicate packets are transmitted from a plurality of satellite-resident routers to a plurality of gateway-resident routers, and are injected into the Internet by each of the plurality of gateway-resident routers.

17. (currently amended) A satellite communication system ~~comprised of~~ comprising:

AB a plurality of satellites and a plurality of gateways,

said satellite communication system being bidirectionally coupled to a terrestrial

communication system through at least said plurality of gateways,

said satellite communication system and said terrestrial communications system comprising

together a data communication network having a plurality of nodes including source nodes, destination nodes and intermediate nodes,

wherein multiple copies of a packet are selectively generated within the data communications

network based on a criteria that includes at least one of (a) whether the packet was previously duplicated by a previous node, and (b) a direction of transmission, from source to destination or from destination to source, and

wherein the multiple copies of the packet are routed, using at least in part satellite-resident

routers and gateway-resident routers, over a plurality of different paths between a particular source node and a particular destination node, and

wherein at least one of the multiple copies of a packet is not used during the execution of a packet reordering procedure in the destination node, or at an intermediate node.

18 – 25 (canceled)

26. (original) A system and network as in claim 17, wherein certain of said paths are carried over satellite-to-gateway uplinks and downlinks, and certain other paths are carried over satellite-to-satellite cross-links.

27. (original) A system and network as in claim 17, wherein at least one of said paths is carried over a satellite-to-user terminal uplink and downlink.

28. (original) A system and network as in claim 17, wherein said packets are TCP/IP packets (or packets with equivalent protocol) containing information for enabling said duplicate packets to be ignored.

29. (original) A system and network as in claim 17, wherein said plurality of gateways couple said satellite communication system to said terrestrial communication system at a plurality of points, including at least at one of regional networks, national networks, commercial networks, Internet Service Providers (ISPs), or directly to a backbone network.

30. (original) A system and network as in claim 17, wherein said plurality of satellites comprise a constellation of non-geosynchronous orbit satellites.

31. (original) A system and network as in claim 17, wherein said plurality of satellites comprise a constellation of low earth orbit satellites.

32. (original) A system and network as in claim 17, wherein said plurality of satellites comprise a constellation of medium earth orbit satellites.

33. (original) A system and network as in claim 17, wherein individual ones of said packets conform to TCP/IP or an equivalent protocol.

34. (original) A system and network as in claim 17, wherein at least some of said packets comprise voice data.

35. (original) A system and network as in claim 34, wherein said system routes said packets comprised of voice data over semi-permanent paths that are established during the duration of a call.

36. (original) A system and network as in claim 34, wherein said at least some of said packets that comprise voice data comprise encrypted voice data.

37. (original) A system and network as in claim 17, wherein said multiple copies of a packet are transmitted from a plurality of satellite-resident routers to a single gateway-resident router, and are injected into the Internet by the single gateway-resident router.

38. (original) A system and network as in claim 17, wherein said multiple copies of a packet are transmitted from a plurality of satellite-resident routers to a plurality of gateway-resident routers, and are injected into the Internet by each of the plurality of gateway-resident routers.

A3 39. (currently amended) A method for packet data transmission through a data communications system comprising satellite routers and terrestrial routers, comprising steps of:
originating a stream of packets at a source node;
selectively duplicating individual ones of the stream of packets within the data communications network based on a criteria that includes at least one of (a) whether the packet was previously duplicated by a previous node, and (b) a direction of transmission, from source to destination or from destination to source and;
operating said satellite routers to route duplicate packets over different paths, including wireless paths through a medium subject to transmission impairments; and
reconstructing the stream of packets from received packets while ignoring an arrival of an already received and valid packet.

40 - 41. (canceled)